

REMARKS

Claims 1 - 16 are pending. Claims 1, 4, 6, 13, and 16 have been amended. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the March 29, 2004 Office Action, the Examiner rejected claims 1 - 16 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,440,639 to Suzuki et al. ("the Suzuki reference"). This rejection is respectfully traversed.

Claim 1, as amended, recites:

A sound processing method comprising the steps of:
separating an input audio signal of at least one system into a **plurality of separated signal components corresponding respectively to a plurality of different types of sound sources;**
subjecting each signal component of at least part of the plurality of separated signal components to individual sound processing suitable for the signal component; and
outputting the plurality of separated signal components as at least one audio signal after each signal component of the at least part thereof is subjected to the individual sound processing.

The Suzuki reference does not disclose, teach, or suggest the sound processing method of claim 1, as amended. The Suzuki reference is directed to a sound localization control apparatus that is used to localize sounds, which can be produced from a synthesizer, at a target location. A sound producing unit supplies the acoustic data to the notch filter through an input terminal 11. The notch filter 15 performs a data processing on the acoustic data in response to the vertical angle θ . The output data of the notch filter 15 is delivered to both of the multipliers 16a and 16b. The control portion 17 receives the distance data SD corresponding to the distance D from the sound localization controller 14. On the basis of the distance data SD, the control portion 17 determines a dividing rate for the acoustic data so as to set an amount of the

acoustic data on which a data processing for long distance is carried out. Based on the dividing rate determined, the control portion 17 computes a multiplication coefficient a and b to be supplied to the multipliers 16a and 16b. The output data of the notch filter 15 is multiplied by the multiplication coefficient a by the multiplier 16a, so that a result of the multiplication is supplied to the allocating unit 18f for long distance. The output data of the notch filter is multiplied by the multiplication coefficient b by the multiplier 16b, so that a result of the multiplication is supplied to the allocating unit 18n for short distance. *(Col. 11, lines 15 - 48).*

The allocating unit 18n performs a data processing in response to the horizontal angle ϕ with respect to the target sound-image location. When embodying the horizontal angle of 45 degrees, the coefficient generator 18nc in the allocating unit 18n sets the multiplication coefficients k_1 to k_{12} for the multipliers 18n1 to 18n12 such that the same amount of data is supplied to the sound directing devices FIR2 and FIR3 which respectively correspond to the horizontal angles of 30 degrees and 60 degrees. In the allocating unit 18f, the coefficient generator 18fc sets the multiplication coefficients m_1 to m_{12} for the multipliers 18f1 to 18f12 with respect to the sound source, the location which is far from the location of the listener. In order to allocate the acoustic data to the sound directing devices, the direction which are slightly apart from the target sound-image, a different allocating rate is set. When the target sound-image location is relatively far from the location of the listener, a directional component for the target sound-image location is somewhat diffused so as to eventually a long-range distance effect to the sound image to be localized. *(Col. 11, line 49 - col. 12, line 7).*

The long distance data and the short distance data are adequately mixed

together. This mixed data is supplied to each of the sound-directing devices FIR1 to FIR12. Each of the data supplied to the sound-directing devices FIR1 to FIR12 is divided into right-channel component and left-channel component on which the predetermined convolution operation is carried out. The left-channel components output from the sound-directed devices FIR1 to FIR12 are added together by the adder 19L, while the right-channel components are added together by the adder 19R. The right-channel acoustic data and the left-channel acoustic data respectively outputted from the adders 19L and 19R are supplied to the cross-talk canceller. A cross-talk canceller 20 performs the anti-crosstalk processing on the right-channel acoustic data and the left-channel acoustic data to eliminate the cross-talk components. (*Col. 12, lines 8 - 32*).

This is not the same as a sound processing method including the steps of **separating an input audio signal** of at least one system **into a plurality of separated signal components corresponding respectively to a plurality of different types of sound sources**. Instead, the Suzuki reference discloses that the input signal is divided by the control portion so as to set an amount of the acoustic data for a long distance or a short distance. There is no disclosure that the input audio signal of the Suzuki reference is **separated into components corresponding to different types of sound sources**. The same output data of the Suzuki notch filter is supplied to the different multipliers and then sent to allocating units, which is not **separated corresponding to different sound sources**. Accordingly, applicant respectively submits that independent claim 1, as amended, distinguishes over the Suzuki reference.

Further, the Suzuki reference does not disclose a sound processing method

including the step of **subjecting each signal component** of at least part of the plurality of separate signal components to **the individual sound processing suitable for the signal components corresponding to the different sound sources**. Instead, the Suzuki reference discloses sending acoustic data to sound-directing devices which perform data processing responsive to respective different locations defined by the horizontal angle ϕ and the distance D in connection with the target sound-image location. The sound-directing devices are not the same as different sound sources because the sound-directing devices receive acoustic data and are not the source of sound. Accordingly, applicant respectfully submits that claim 1 further distinguishes over the Suzuki reference.

Independent claim 6, as amended, recites similar limitations to independent claim 1, as amended. Accordingly, applicant respectfully submits that claim 6 distinguishes over the Suzuki reference for similar reasons as discussed above in regard to independent claim 1, as amended.

Claims 2 - 5 and 7 - 16 depend, directly or indirectly, on independent claims 1 and 6, both as amended. Accordingly, applicant respectfully submits that claims 2 - 5 and 7 - 16 distinguish over the Suzuki reference for the same reasons as discussed above in regard to independent claims 1 and 6, both as amended.

///

///

///

///

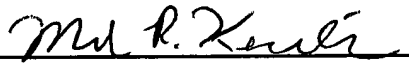
///

Applicant believes that the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

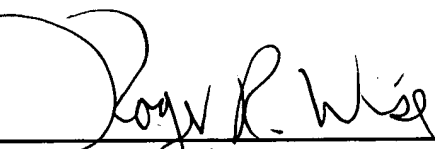
Respectfully submitted,

PILLSBURY WINTHROP LLP

Date: June 29, 2004

By: 
Mark R. Kendrick
Registration No. 48,468
Attorney for Applicant(s)

Date: June 29, 2004

By: 
Roger R. Wise
Registration No. 31,204
Attorney For Applicant(s)

725 South Figueroa Street, Suite 2800
Los Angeles, CA 90017-5406
Telephone: (213) 488-7100
Facsimile: (213) 629-1033